

## Property Databases for the Calculation of Heat Cycles and Turbines

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The developed software for calculating thermophysical properties and plotting thermodynamic charts of working fluids is meant for the daily work of the engineer who calculates heat cycles, steam and gas turbines, and other thermal processes. Thermodynamic properties, transport properties, thermodynamic differential quotients and backward functions can be calculated.

The following property databases and programs will be presented:

- Dynamic Link Libraries FluidDLL for use in Windows programs
- Add-In FluidEXLGraphics for Excel<sup>®</sup> including graphical representation of the calculated properties in thermodynamic charts
- (T,s- , h,s- , logp,h- , logp,logv- , logp,T- , p,T- , T,h- , T,logv- , logp,s- , h,logv- and s,logv-diagram)
- Library FluidMAT for Mathcad<sup>®</sup>
- Dialog program FluidDATGraphics for use as electronic steam table in Windows including graphical representation of the calculated properties in thermodynamic charts (same diagrams as for FluidEXLGraphics)
- Program FluidDIA for calculating and plotting large size and camera-ready thermodynamic charts (h,s- T,s- logp,h- and h,x-diagram)
- The range of state of the diagram, isolines , scale and size can be adjusted by the user.
- Software for Pocket Computers:

FluidTI for Texas Instruments<sup>®</sup> TI 89 and TI 92

FluidHP for Hewlett Packard<sup>®</sup> HP 48G

FluidCASIO for CASIO<sup>®</sup> FX 880P .

Versions for students of all programs are available.